REPORT ON: DISCUSSIONS WITH RESEARCHERS AT CHULALONGKORN UNIVERSITY THAILAND RE "DEVELOPMENT OF PRIMARY CARE SYSTEM IN URBAN LOW INCOME FLATS OF DINDAENG BANGKOK METROPOLIS, THAILAND"

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BACKGROUND

Meetings with two of the researchers (Dr. Termsri and Dr. Tassanee) were held on March 1st and 2nd at Chulalongkorn. Unfortunately, the principal investigator (Dr. Ong-arj) was not in attendance on either day due to prior commitments. A revised proposal was received the evening before the meetings which was significantly more focussed than the original submission. Although the proposal did not specifically state the research objective as the evaluation of a Community Health Volunteer (CHV) program, it was clear that this was indeed their focus. They proposed a process for the selection of CHVs from the low income flats of Dindaeng, a training programme for the CHVs, supervision of CHVs by local health personnel and evaluation of their performance by the research team. Although it was not clear in the proposal, initial discussions revealed that they planned a before-after design. "Before" measurements were to be taken as part of a community needs survey that is about to get underway.

ORIENTATION DISCUSSIONS

Because the investigators seemed to be oriented mostly towards the development of the CHV program (i.e. "process" factors), initial discussions were steered towards what specific outcomes they expected to change as a consequence of the intervention of a CHV program. This served to emphasize that funding was for the evaluation of the CHV, rather than merely for the development and funding of CHVs.

It was quickly apparent that the investigators hoped to see their CHV

concept introduced in all low income flats in Bangkok (total number of 400 flats). Attention was therefore drawn to the need for "generalization" value of their evaluation. In a number of places in their proposal they expect members of the research team to do training, research money to fund aspects of the CHV or research money to contribute toward the supervision cost of CHVs. The investigators realized that all this money and these special skills of the research team would not be available to all the 400 flats if CHVs were to be widely introduced, and therefore they will not be evaluating the CHV program as it would actually operate. They are proposing an efficacy trial of the CHV ("will it work under ideal conditions"), and are aware that this will have to be followed by an evaluation of the effectiveness of CHVs operating under "real" conditions, should CHVs prove successful at the efficacy stage. They stated quite reasonably that the efficacy study was required to demonstrate to local health officials that the CHVs could improve the health system. This would increase the likelihood of the health officials contributing the small additional funds required to train, equip and supervise the unpaid CHVs. This discussion was valuable in clarifying for the investigators the important difference between an efficacy and an effectiveness trial.

During these discussions it also became clear that there had been no consideration of the attitudes or current workloads of local health personnel who would be required to train and supervise the CHVs. For example, after introduction of CHVs the public health nurses would be expected to spend up to 15% of their time supervising CHVs without any reduction in workload or increase in renumeration. The importance of restructuring the proposal to do the following was indicated:

- Plan the CHV role for what can feasibly be fitted into present local conditions.

- Establish a coordinating committee of local health officials to oversee the project and increase cooperation.
- Introduce ways in which the CHV will reduce the workload of local health personnel, or at least provide tangible benefits to them.
- Provide evidence that the investigators had spent time with the local health officials and understood the every-day operators of the local health system.

DESIGN CONSIDERATIONS

The "before-after" design was contrasted with a "control area" design in which the before and after measurements would occur in both the project area and a comparable control area (without CHVs). The various advantages and disadvantages of these two approaches were discussed at length before the investigation themselves decided upon the control area design for the following reasons:

- They did not feel that with a before-after design they could ever be fully confident that any changes in outcomes were really due to the CHV rather than some other general factor that affected the whole population of low income flat dwellers (e.g. national health education campaign).
- The control area design would allow them to evaluate the CHV program specifically, while controlling for the general effects that might be due to community needs assessment (which would be occuring in both project and control areas).
- If (as appears to be the case) the CHV program is likely to be introduced in all low-income flats if the evaluation is positive, it is very important that there be a high level of confidence that any changes in outcomes are really due to the introduction of CHVs. This level of confidence can only be achieved with a control area design.

(While the IDRC may save some funds by recommending a before-after design, this could result in Thailand expending unncessary funds on development of a CHV program that they thought was effective when indeed it was not. It appears very important to avoid Type I error in this situation).

It was recommended that they seek a control area in a set of low income flats outside the Dindaeng area because of the danger of contamination.

THE CHV PROGRAM

The elements of this program had not been carefully detailed, especially the exact "job description" of the CHV. Because the CHV is based on a rural health model that is already in operation, considerable time was spent on the details of the rural equivalent program. The investigators had envisaged a far more extensive role for the CHV than for the rural equivalent, but had not clearly specified the exact expectations for the CHV. It was pointed out that evaluation of the CHV was not really possible without exact specification of their function (and therefore specification of which health indicators might expect to change as a consequence of their introduction). Because the orientation of the investigators is toward primary health care, and because this is clearly the most appropriate role for a CHV, it was recommended that the job description be limited to a fairly small number of functions in which they could easily be trained. The following specific functions were decided upon:

- Identification of pregnant women and referral to ante-natal care.
- Identification of potentially underweight children (0-5 yrs) and referral to public health nurse for weighing and follow-up.
- Identification of pre-school children without immunization and referral to local health centre.
- Distribution of health education materials/posters on appropriate use of the health system,

- Detection of upto three of the most common health problems for which there are effective treatments (the planned community health needs assessment will reveal exactly which health problems).

- Either treatment of the common health problem (e.g. oral rehydration salts) or referral to the local health centre for treatment (e.g. parasitic infestation).

- Provision of health education materials for prevention of the common health problems.

Each floor of the low income flats (20 families per floor) will have two CHVs - one male and one female - who meet educational, motivational and literacy criteria.

CHVs would be trained in three five day sessions using materials developed by the research team. The full CHV role would be staged over a few months with three separate training sessions covering the different aspects of the role.

Supervision of the trained CHVs would be done by the public health nurses meeting all 8 CHVs from one flat at a monthly meeting. Information collected by the CHVs would be passed to the public health nurse at these meetings.

MEASUREMENT OF OUTCOMES (EVALUATION)

It was pointed out that the investigators were introducing a new health worker to the system and evaluation of more than just impact on the flat residents was required. Attention was drawn to the fact that before full introduction of CHVs the following should be evaluated:

- Competence
- Acceptance - a) by other health workers
  b) by the flat residents
- Impact - a) on the flat residents (via health indicators)
  b) on the health system (via utilization data)

- Efficacy, or at least cost per trained CHV.

However, not all of these factors would necessarily be evaluated in this trial. The primary outcome in this trial will be the impact on flat residents. Consideration was also given to measuring competence, acceptance, and impact on the health system.

Impact on the Flat Residents and the Health System) - For each function of the CHV the investigators suggested a measure that should change if the CHV is being successful. Hence the following types of outcomes would be measured in both the experimental and control areas:

- Prevalence of common health problems.
- % of cases treated.
- Days duration of common symptoms.
- % immunization coverage
- Pregnancy month of acceptance for ante-natal care.
- Self-rated health status.
- % of flat residents attending local health centre.

Measures of the impact on the health system should include:

- Number of patient visits at local health centre.
- Number of home visits by public health nurses.
- Cost of supplies for CHVs.
- Time for supervising CHVs.

Most of these measurements, will be taken before the trial starts and at the end (2 years) in both control and experimental areas. In addition, simplified measurement of some indicators will occur at six monthly intervals in the experimental area.

Competence and Acceptance - Questionnaires will be developed to assess the acceptance of the CHVs. No clear measure of competence has yet been decided

upon.

These measurements will be done by both medical students and the research team (note: they will not be "blind" to the experimental and control areas).

DATA ANALYSIS

Because one investigator (Dr. Termsri) is the biostatistician for the medical school, very little time was spent discussing this aspect of the proposal. It was emphasized that the experimental and control areas should include enough residents to generate prevalence, acceptance or attendance rates that would be large enough to reliably demonstrate a difference between the experimental and control residents.

CONCLUSIONS

These two investigators (Termsri and Tassanee) are extremely well motivated and are probably good researchers but are not experienced at field research. Their plans to perform a community needs assessment prior to the current study should provide them with valuable experience. The skills and attributes of Dr. Ong-arj (principal investigator) could not be evaluated due to his absence.

The major problem in their conceptualization of the research project was confusion between the two aspects of: a) developing the contents and structure of the CHV program, b) evaluating the CHV program. I believe this confusion has been cleared up.

The probability that the CHV program would be implemented on a widespread basis should their evaluation be positive, indicates a need for a follow-up "effectiveness" evaluation once this pilot efficacy trial has been completed.

There appears to be adequate resources within Chulalongkorn to support the data analysis, computer needs and management aspects of the study. It is apparently highly probable that one of the investigators (Dr. Termsri) will become Chairman of the Department of Social and Preventive Medicine in the near

future, which should further ensure adequate support for the study within Chulalongkorn.

Finally, I was unable to direct the investigators on the issue of how much detail they should provide on their proposed measurement instruments or the actual contents of the CHV training program. Clearly, a lot of this work will be undertaken with the IDRC funds, however I am unaware of the IDRC's expectations for at least indicating sample contents of the measurement instruments and training programs. The investigators would appreciate guidance on the degree of detail on these matters expected by the IDRC in the project proposal.

Because the teaching commitments of these investigators are at their peak in the next few months, the IDRC should not expect to receive a revised proposal until mid-summer at the earliest.